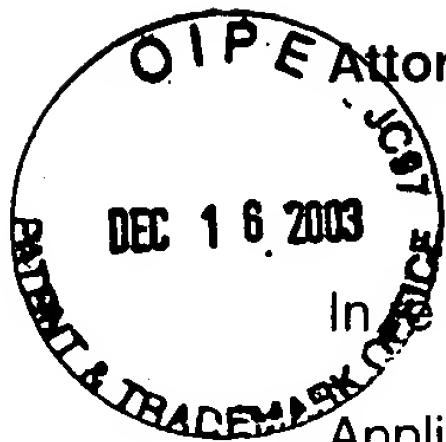


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Image

PATENT



Attorney's Docket No. 2942R/B

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Brian B. Filippini et al.

Application No.: 09/490,759

Group No.: 1714

Filed: 01/24/2000

Examiner: TOOMER, Cephia

For: Partially Dehydrated Reaction Product, Process for Making Same, and Emulsion Containing Same

Mail Stop Petition

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

PETITION FOR WITHDRAWAL OF ABANDONMENT

1. Applicant petitions that the abandonment set forth in the Notice mailed by the Office on November 20, 2003 be withdrawn.

SUBMISSION

2. Submitted herewith is:

☒ A copy of the postcard identifying the papers filed and showing the U.S. PTO receipt stamp dated July 25, 2003.

☒ A copy of the complete response filed July 22, 2003

3. Please proceed with further examination of this application on the basis of:

☐ The original papers filed, which have now reached the appropriate area of the PTO.

AND/OR

☒ The attached copy of the papers originally filed.

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

(When using Express Mail, the Express Mail label number is **mandatory**;
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

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☒ deposited with the United States Postal Service in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

37 C.F.R. § 1.8(a)

☒ with sufficient postage as first class mail.

37 C.F.R. § 1.10*

☐ as "Express Mail Post Office to Addressee"

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Date: 12/12/03

Nancy S. Dedek
Nancy S. Dedek

4. The petition fee (37 C.F.R. § 1.17(h)–\$130.00) is paid as follows:

- ☒ Authorization is hereby made to charge the amount of \$130.00 to Deposit Account No. 12-2275.
- ☒ Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

A duplicate of this paper is attached.

REQUEST FOR REFUND OF PETITION FEE

5. As no defect exists in applicant's previous submission, a refund of the petition fee submitted herewith is respectfully requested.

REQUEST FOR WITHDRAWAL OF ABANDONMENT

6. ☒ Acknowledgment of the active status of this application is respectfully requested.

Date: 11th December 2003



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PATENT

2942R/B

I hereby certify that this correspondence is being deposited with the United States Postal Service in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450, on

7-22-03

Date of Deposit

Nancy S. Dedek
Nancy S. Dedek

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Brian B. Filippini et al.

Serial No. 09/490,759

Examiner: TOOMER, Cephia D.

Filed: January 24, 2000

Art Unit: 1714

For: PARTIALLY DEHYDRATED REACTION PRODUCT, PROCESS FOR
MAKING SAME, AND EMULSION CONTAINING SAME

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE

Sir:

In response to the Office Action of April 22, 2003 applicant responds as follows:

(B) Please delete claims 1 and 4-25 without prejudice or bias and amend claims 26-33
to read as follows.

Amended Claims

1. (deleted)
2. (previously deleted)
3. (previously deleted)
- 4-25 (deleted)

26. (amended) An emulsion, comprising an organic phase; an aqueous phase; and an emulsifying amount of ~~the~~ a composition of ~~claim 1~~ comprising a partially dehydrated product made by:

(I) reacting (A) a hydrocarbyl substituted succinic acid or anhydride with (B) a polyol, a polyamine, a hydroxylamine, or a mixture of two or more thereof, to form a first intermediate product comprising: an ester, partial ester or a mixture thereof when (B) is a polyol; an amide, imide, salt, amide/salt, partial amide or mixture two or more thereof when (B) is a polyamine; or an ester, partial ester, amide, partial amide, amide/salt, imide, ester/salt, salt or a mixture of two or more thereof when (B) is a hydroxylamine, a mixture of a polyol and a polyamine, a mixture of polyol and a hydroxylamine, a mixture of a polyamine and a hydroxylamine, or a mixture of a polyol, a polyamine and a hydroxylamine; the hydrocarbyl sustituent of said acid or anhydride having an average of about 12 to about 24 carbon atoms; and

(II) heating said first intermediate product at an effective temperature to form a second intermediate product with water of reaction being formed, and separating a portion of said water of reaction from said second intermediate product to form said partially dehydrated product, when (A) is said succinic anhydride the amount of water of reaction that is separated is from about 0.2 to about 0.9 moles of said water of reaction per equivalent of said succinic anhydride, when (A) is said succinic acid the amount of water of reaction that is separated is from about 1.2 to about 1.9 moles of said water of reacting per equivalent of said succinic acid, said partially dehydrated product having a total acid number in the rang of about 20 to about 100 mg of KOH/g.

27. (amended) An emulsion according to claim 26 wherein said organic phase is a continuous phase and said aqueous phase is a discontinuous phase, comprising: a

~~continuous organic phase, a discontinuous aqueous phase, and an emulsifying amount of the composition of claim 1.~~

28. (amended) An high internal phase emulsion according to claim 27 wherein , comprising: a continuous organic phase, a discontinuous aqueous phase, and an emulsifying amount of the composition of claim 1 the weight ratio of said aqueous phase to said organic phase being at least about 4:1 resulting in a high internal phase emulsion.

29. (amended) An explosive emulsion according to claim 27, wherein said aqueous phase, comprisesing: a a discontinuous oxidizer phase comprising water and an oxygen-supplying component; and saida continuous organic phase comprisesing a carbonaceous fuel; and an emulsifying amount of the composition of claim 1.

30. (amended) An emulsion according to claim 27 wherein saidfertilizer, comprising: a discontinuous aqueous fertilizer phase comprisesing at least one water soluble fertilizer component; said a continuous organic phase comprisesing at least one oil; and wherein said emulsion is a fertilizer compositionan emulsifying amount of the composition of claim 1.

31. (amended) A water-blended fuel composition, comprising: a discontinuous aqueous phase; a continuous fuel phase comprising a normally liquid hydrocarbon fuel; and an emulsifying amount of ~~the composition of claim 1~~ a composition comprising a partially dehydrated product made by:

(III) reacting (A) a hydrocarbyl substituted succinic acid or anhydride with (B) a polyol, a polyamine, a hydroxylamine, or a mixture of two or more thereof, to form a first intermediate product comprising: an ester, partial ester or a mixture thereof when (B) is a polyol; an amide, imide, salt, amide/salt, partial amide or mixture two or more thereof when (B) is a polyamine; or an ester, partial ester, amide, partial amide, amide/salt, imide, ester/salt, salt or a mixture of two or more thereof when (B) is a hydroxylamine, a mixture of a polyol and a polyamine, a mixture of polyol and a hydroxylamine, a mixture of a polyamine and a hydroxylamine, or a mixture of a polyol, a polyamine and a hydroxylamine; the hydrocarbyl sustitutent of said acid or anhydride having an average of about 12 to about 24 carbon atoms; and

heating said first intermediate product at an effective temperature to form a second intermediate product with water of reaction being formed, and separating a portion of said water of reaction from said second intermediate product to form said partially dehydrated product, when (A) is said succinic anhydride the amount of water of reaction that is separated is from about 0.2 to about 0.9 moles of said water of reaction per equivalent of said succinic anhydride, when (A) is said succinic acid the amount of water of reaction that is separated is from about 1.2 to about 1.9 moles of said water of reaction per equivalent of said succinic acid, said partially dehydrated product having a total acid number in the range of about 20 to about 100 mg of KOH/g.

32. (amended) A lubricant or functional fluid, comprising: an oil phase, an aqueous phase, an emulsifying amount of ~~the~~ a composition of claim 1 comprising a partially dehydrated product made by:

(IV) reacting (A) a hydrocarbyl substituted succinic acid or anhydride with (B) a polyol, a polyamine, a hydroxylamine, or a mixture of two or more thereof, to form a first intermediate product comprising: an ester, partial ester or a mixture thereof when (B) is a polyol; an amide, imide, salt, amide/salt, partial amide or mixture two or more thereof when (B) is a polyamine; or an ester, partial ester, amide, partial amide, amide/salt, imide, ester/salt, salt or a mixture of two or more thereof when (B) is a hydroxylamine, a mixture of a polyol and a polyamine, a mixture of polyol and a hydroxylamine, a mixture of a polyamine and a hydroxylamine, or a mixture of a polyol, a polyamine and a hydroxylamine; the hydrocarbyl substituent of said acid or anhydride having an average of about 12 to about 24 carbon atoms; and

heating said first intermediate product at an effective temperature to form a second intermediate product with water of reaction being formed, and separating a portion of said water of reaction from said second intermediate product to form said partially dehydrated product, when (A) is said succinic anhydride the amount of water of reaction that is separated is from about 0.2 to about 0.9 moles of said water of reaction per equivalent of said succinic anhydride, when (A) is said succinic acid the amount of water of reaction that is separated is from about 1.2 to about 1.9 moles of said water of reaction per equivalent of said succinic acid, said partially dehydrated product having a

- total acid number in the rang of about 20 to about 100 mg of KOH/g and at least one functional additive.

33. (amended) An acidizing fluid, comprising: a continuous oil phase, a discontinuous aqueous phase, an emulsifying amount of ~~thea~~ composition of claim 1 comprising a partially dehydrated product made by:

(V) reacting (A) a hydrocarbyl substituted succinic acid or anhydride with (B) a polyol, a polyamine, a hydroxylamine, or a mixture of two or more thereof, to form a first intermediate product comprising: an ester, partial ester or a mixture thereof when (B) is a polyol; an amide, imide, salt, amide/salt, partial amide or mixture two or more thereof when (B) is a polyamine; or an ester, partial ester, amide, partial amide, amide/salt, imide, ester/salt, salt or a mixture of two or more thereof when (B) is a hydroxylamine, a mixture of a polyol and a polyamine, a mixture of polyol and a hydroxylamine, a mixture of a polyamine and a hydroxylamine, or a mixture of a polyol, a polyamine and a hydroxylamine; the hydrocarbyl sustituent of said acid or anhydride having an average of about 12 to about 24 carbon atoms; and

heating said first intermediate product at an effective temperature to form a second intermediate product with water of reaction being formed, and separating a portion of said water of reaction from said second intermediate product to form said partially dehydrated product, when (A) is said succinic anhydride the amount of water of reaction that is separated is from about 0.2 to about 0.9 moles of said water of reaction per equivalent of said succinic anhydride, when (A) is said succinic acid the amount of water of reaction that is separated is from about 1.2 to about 1.9 moles of said water of reacting per equivalent of said succinic acid, said partially dehydrated product having a total acid number in the rang of about 20 to about 100 mg of KOH/g;

and a non-oxidizing acid.

Remarks

Claims 1 and 4-25 were rejected under 103(a) as being unpatentable over Dorer (U.S. 4, 613, 342). Claims 26-33 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

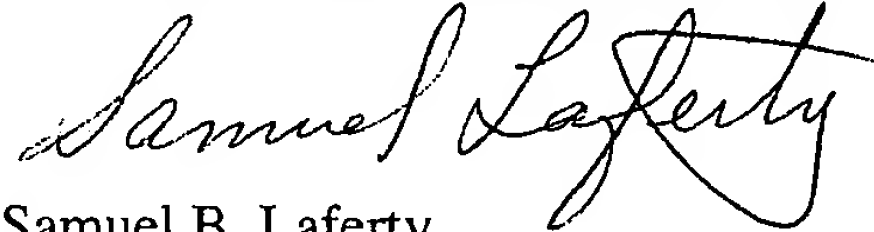
Accordingly applicant has canceled claims 1 and 4-25 without prejudice or bias and has rewritten claims 26-33 in independent form including all of the limitations of any intervening claims.

Applicant requests a notice of allowance of the remaining claims after amendment.

If any fees are due in the submission of this document, the Commissioner is hereby authorized to charge such fee to our Deposit Account No. 12-2275. A duplicate copy of this document is enclosed for such purpose.

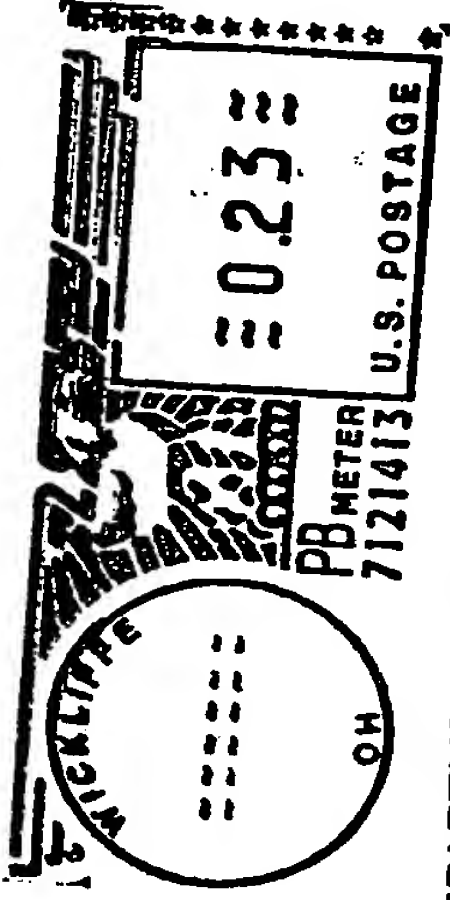
Respectfully submitted,

THE LUBRIZOL CORPORATION



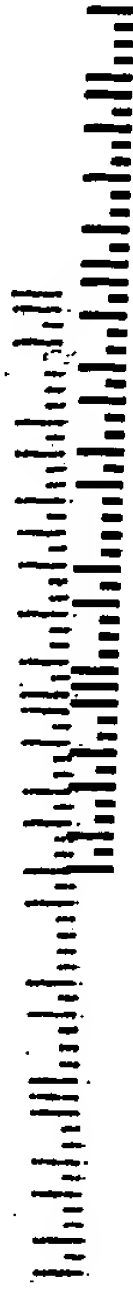
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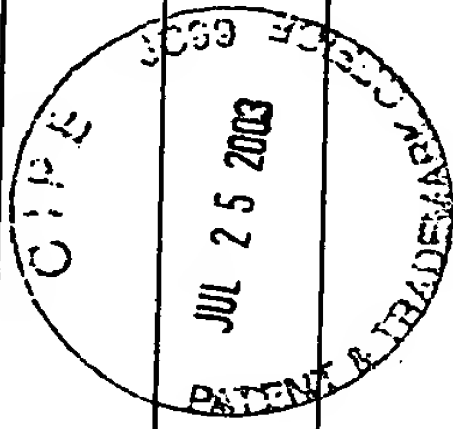


Docket No. 2942R/B Date Mailed: 7-22-03

Serial No. 09/490,759 Filed: 1-24-00

Inventors(s) Filippini et al.

This acknowledges receipt of Amendment & Response (in duplicate)



Atty. Initials sb1a